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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402

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| EXAMINER |
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FLORY, CHRISTOPHER A

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| ART UNIT | PAPER NUMBER |
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3762

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 02/20/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/630,454

Applicant(s)

HOLMQUIST ET AL.

Examiner

Christopher A. Flory

Art Unit

3762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record was considered in a telephone interview conducted at 2:30 p.m. on 31 January 2007 with Suneel Arora (42267). Interview was to discuss the merits of claims 33 and 37, specifically the addition of claim language directed to the inventive function of the repeater in order to overcome the prior art references. Amended claim language was proposed by the Applicant and agreed upon by the Examiner. However, since the time of the interview, a new reference has been found based on an updated search sufficient to formulate new grounds of rejection. As such, the claim amendments discussed in the interview shall be withdrawn in view of the new grounds of rejection applied to the claims as presently presented.

Response to Arguments

2. Applicant's arguments, see page 10, filed 25 August 2006, with respect to the rejection of claims 3-5, 16-18 and 33 under 35 U.S.C. §112, second paragraph, have been fully considered and are persuasive. The §112 rejection of claims 3-5, 16-18 and 33 has been withdrawn.

3. Applicant's arguments, see pages 10-15, filed 25 August 2006, with respect to the rejection(s) of claim(s) 1, 3-5, 13-18, 23-28 and 32 under 35 U.S.C. §102(b) as being anticipated by Lebel'480 have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a

new ground(s) of rejection is made in view of a newly found prior art reference applied in combination with the previously applied art.

Claim Rejections - 35 USC § 103

4. Claims 1, 3-5, 13-18, 23-28 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel et al. (U.S. 2002/0049480, hereinafter Lebel'480) in view of Webb et al. (US 6,699,187, hereinafter Webb'187).

In regards to claims 1, 15 and 25, Lebel'480 discloses a system and method of wirelessly exchanging data by radio frequency telemetry or inductive links (see for examples paragraphs 155 and 420) with an implantable electrical stimulation device (see paragraph 432). Examiner further interprets the implantable device as capable of executing at least one application program that provides data to be exchanged and executing a set of information exchange instructions on the data (see for example paragraph 298). Examiner also takes the position the system as taught by Lebel'480 inherently discloses dividing the data into packets (see for example paragraph 298), in which each packet comprises a preamble, frame sync, telemetry identifier and data which Examiner interprets each component to broadly meet the limitation of header data (see for examples paragraphs 301, 304, 306, 308 and 309) as Lebel'480 discloses that the preamble is capable of providing assistance to an external device in deciphering data (see for example paragraph 301).

Further regarding claims 1, 15, 25, Lebel'480 is considered to disclose the invention substantially as claimed, but does not expressly disclose analyzing the

transport control information of the header data of each received packet to determine the position of data from the packet within the data from other packets being reconstructed. In the same field of endeavor, Webb'187 teaches communication stacks used to create packets containing header information identifying the source and type of data being transferred (column 8, lines 6-10), and that the header section includes a bit corresponding to each of the regions in a display window set to include changed data so that a transferred packet contains regions indicated as associated with changed data or not (column 10, lines 27-57). This teaching is considered synonymous to that which is claimed in the instant application, since Webb'187 is teaching a header with bits dedicated to the specific display position of data in the packet being transferred, and further the size and type of data included in a specific packet. As such data in the Webb'187 system can be determined to be of a specific position within a specific packet when transmitted within data from other packets being reconstructed. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system as taught by Lebel'480 with the positional header packet information method as taught by Webb'187 to provide the Lebel'480 system with the same advantage of significantly reducing the amount of data that must be transferred, and subsequently reducing the time of transmission (motivation to combine provided by Webb'187, column 10, lines 39-41).

In regards to claims 3-5, 16-18 and 26-28, Lebel'480 discloses that the transporting of signals that contain protocol that insure proper transmission (see for example paragraph 158), data usage protocol for proper usage of data (see for example

paragraphs 202, 227 and 298). Examiner takes the position that the teachings of Lebel'480 are inherently capable of performing the limitations of claims 3-5 since at least one protocol is necessarily needed to carry out the transmission of data, and thus the teachings of Lebel'480 anticipate the limitations of claims 3-5. Or in the alternative, Examiner takes the position that it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Lebel'480 to include various types of standard protocol as claimed by Applicant, since these types of protocol are standard and well known in the art, as these teachings are admitted prior art by Applicant (see Applicant's Specification paragraph 29).

In regards to claims 13, 14, 23, 24 and 32, Lebel'480 discloses wireless communication by way radio frequency and inductive links (see for example paragraph 155 and 420).

5. Claims 6-12, 19-22 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel'480 in view of Webb'187 as applied to claims 1, 3-5, 13-18, 23-28 and 32 above, and further in view of Lee (U.S. 2001/0031997, hereinafter Lee'997).

In regards to claims 6-7, 12, 19, 22 and 29, Lee'997 teaches that the interface medical device (116) could be placed outside the patient, which Examiner interprets to also mean that that interface medical device could alternatively be placed inside the patient (see for example paragraph 28), in a position similar to the implanted medical device (112), which are both part of an implantable medical device network system (110). Examiner further takes the position that it would have been obvious to one having ordinary skill in the art to modify the system as taught by Lebel'480 to include in

each packet information regarding network routing information and to combine these teachings into a single implanted device, for enhancing data transmission and accessibility, and for increasing implantation feasibility.

In regards to claims 8-9, 20-21, 30-31, Examiner takes the position that it would have also been obvious to one having ordinary skill in the art at the time of the invention to further modify the teachings of Lebel'480 to include network routing information that corresponds to various types of standard protocol as claimed by Applicant, since these types of protocol are standard and well known in the art, as these teachings are admitted prior art by Applicant (see Applicant's Specification paragraph 33).

In regards to claims 10-11, Examiner takes the position that is well known in the art to have data transmitted with a higher priority than other data as deemed necessary; thus it would have been obvious to one having ordinary skill in the art to modify the teachings of Lebel'480 to include priority data transmitted prior to data with less priority, as it is commonly known in the art for enhancing the effectiveness of diagnosis and treatment of a patients.

6. Claims 33-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel'480 in view of Webb'187 as applied to claims 1, 3-5, 13-18, 23-28 and 32 above, and further in view of Nappholz et al. (U.S. Patent No. 5,720,770, hereinafter Nappholz'770).

In regards to claims 33-34, 36-37, Lebel'480 teaches of transmitting data from an implantable stimulation device to an external database (32); however Lebel et al. does

not specifically teach of the use of repeater for transmitting data between an implanted device and a data network.

Nappholz'770 teaches of a cardiac stimulation system that comprises transferring data between a data network and an implantable pulse generator (see for example col. 2 lines 46-52), a wired connection between the data network and a repeater (see for example col. 2 lines 66-67, col. 4 lines 9-16 and the Abstract), and a wireless connection between the repeater and the implantable pulse generator (see for example col. 4 lines 6-9). Examiner takes the position that Nappholz'770 inherently teaches of the ability to establish a first transport layer between the data network and the repeater and a second transport layer connection between the repeater implantable pulse generator, since this would be required for the transmission of data over both a wired connection and wireless connection respectively. Further, it is inherent in the system as taught by Nappholz'770 that the system is capable of sending data with first transport control header information from the data network to the repeater and further sending the data with second transport control header information from the repeater to the implantable pulse generator.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by Lebel'480 to include the teachings of Nappholz'770. Lebel'480 and Nappholz'770 both teach of implantable medical devices that transmit data with an external device, and thus teach of analogous arts. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by Lebel'480 to include a repeater for transmitting data

between the implantable device and a data network, since it would increase the accessibility to patient data and the implantable device as taught by Nappholz'770 (see for example col. 4 lines 11-23 and col. 6 lines 64-67).

In regards to claim, 35 and 38-39, Examiner takes the position that it is inherent in the both the Lebel'480 and Nappholz'770 systems that a transport control protocol would be necessary to allow proper transmission of data, or in the alternative would an obvious modification to the Lebel et al. reference. Examiner further takes the position that it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a longer re-transmission timeout for the connection between the repeater and the implantable device, than for the data network and the repeater, since it is well known in the art that a transmission over a shorter distance (i.e. close proximity) requires less time than does a transmission over a longer distance (i.e. cellular connection).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Flory whose telephone number is (571) 272-6820. The examiner can normally be reached on M - F 8:30 a.m. to 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher A. Flory

15 February 2007


George Manuel
Primary Examiner